## **American Society for Quality (ASQ)**

### DANTES Test Centers' Authorization

The American Society for Quality (ASQ) authorizes military installations with DANTES Test Centers to administer the ASQ certification examinations to uniformed military personnel.

### **Background**

The American Society for Quality (ASQ) certification program was developed more than 30 years ago to recognize those individuals who have demonstrated proficiency within a specified body of knowledge. Over the years, more than 81,000 people have become certified through ASQ. The program has become a marketplace requirement for quality professionals and is consistently cited in ASQ member surveys as one of the most important activities of the Society.

Certification is a formal recognition by ASQ that an individual has demonstrated proficiency within and comprehension of a specified body of knowledge at a point in time. It is peer recognition and not registration or licensure.

#### Address

**ASQ** 

611 East Wisconsin Avenue

P O Box 3005

Milwaukee, Wisconsin 53201-3005

Phone: (800)248-1946

#### Certification

ASQ offers certification in the following areas:

- Quality Engineer (CQE)
- Reliability Engineer (CRE)
- Quality Technician (CQT)
- Mechanical Inspector (CMI)
- Quality Auditor (CQA)
- Quality Manager
- Software Quality Engineer (CSQE)
- Quality Improvement Associate (CQIA)
- Quality Auditor Certification-HACCP (CQA-HACCP)
- Calibration Technician (CCT)

## **Description**

Certified Quality Engineer (CQE) The Quality Engineer is a professional who understands the principles of product and service quality, evaluation, and control.

# **CQE Examination**

The 5-hour examination consists of 160 multiple-choice questions. Topics covered on the Certified Quality Engineer examination are:

Number	Topics	Number of Questions
I	Management and Leadership in Quality Engineering	19
II	Quality Systems Development, Implementation, and	19
	Verification	
III	Planning, Controlling, and Assuring Product and	33
	Process Quality	
IV	Reliability and Risk Management	11
V	Problem Solving and Quality Improvement	25
VI	Quantitative Methods	53

Certified Reliability Engineer (CRE) The Reliability Engineer is a professional who understands the principles of performance evaluation and prediction to improve product/systems safety, reliability, and maintainability.

# CRE Examination

The 4-hour examination consists of 150 multiple-choice questions. Topics covered on the Certified Reliability Engineer examination are:

Number	Topics	Number of Questions
I	Reliability Management	16
II	Probability and Statistical Tools	28
III	Modeling and Prediction	18
IV	Data Collection and Analysis and Corrective	17
	Action	
V	Reliability Tools in Design and Development	27
VI	Maintainability and Availability	15
VII	Reliability Testing	18
VIII	Product Safety and Liability	11

Certified Quality Technician (CQT) The Quality Technician is a professional who, in support of and under the direction of quality engineers or supervisors, analyzes and solves quality problems, prepares procedures, trains inspectors, perform audits, analyzes quality costs and other quality data and applies fundamental statistical methods for process control.

### CQT Examination

The 4-hour examination consists of 100 multiple-choice questions. Topics covered on the Certified Quality Technician examination are:

		Number of
Number	Topics	Questions
I	Quality Concepts and Tools	21
II	Statistical Techniques	23
III	Metrology and Calibration	13
IV	Inspection and Test	21
V	Quality Audits	11
VI	Preventive and Corrective Action	11

Certified Mechanical Inspector (CMI) The Mechanical Inspector, under professional direction, evaluates hardware documentation, performs laboratory procedures, inspects products, measures process performance, records data, and prepares formal reports.

### CMI Examination

The 4-hour examination consists of 100 multiple-choice questions. Topics covered on the Certified Mechanical Inspector examination are:

		Number of
Number	Topics	Questions
I	Technical Mathematics	13
II	Inspection and Test	30
III	Measurement Tools	34
IV	Statistical Techniques	14
V	Quality Improvement	9

Certified Quality Auditor (CQA) The Quality Auditor is a professional who understands the standards and principals of auditing and the auditing techniques of examining, questioning, evaluating, and reporting to determine a quality systems adequacy and efficiencies.

#### CQA Examination

The 4-hour examination consists of 150 multiple-choice questions. Topics covered on the Certified Quality Auditor examination are:

Number	Topics	Number of Questions
I	Ethics, Professional Conduct and Liability Issues	5
II	Audit Preparation	32
III	Audit Performance	32
IV	Audit Reporting	10
V	Corrective Action Follow-up and Closure	12
VI	Audit Program Management	10
VII	General Knowledge and Skills	49

Certified Calibration Technician (CCT) The Calibration Technician tests, calibrates, maintains, and repairs electrical, mechanical, electromechanical, analytical and electronic measuring, recording, and indicating instruments and equipment for conformance to establish standards.

# **CCT Examination**

The 4-hour Calibration Technician examination consists of 125 multiplechoice questions. Topics covered on the Certified Calibration Technician examination are:

Number	Topics	<b>Number of Questions</b>
I	General Metrology	30
II	Measurement Systems	25
III	Calibration Systems	25
IV	Applied Math and	20
	Statistics	
V	Quality Systems and	15
	Standards	
VI	Uncertainty	10

Certified Quality Manager

The Quality Manager is a professional who understands quality standards and concepts, can implement organizational assessments, and maintain customer satisfaction and focus.

## Quality Manager Examination

The 4-hour Quality Manager examination consists of 150 multiple-choice questions in a 3 hour 15 minute period, and 2 constructed response questions over a 45-minute period. Topics covered on the Certified Quality Manager examination are:

Number	Topics	Number of
		Questions
I	Leadership	30
II	Strategy Development and Deployment	30
III	Quality Management Tools	20
IV	Customer-Focused Organizations	20
V	Project Management	10
VI	Management	30
VII	Training and Development	10

Certified Software Quality Engineer (CSQE) The Software Quality Engineer is a professional who has a comprehensive understanding of software quality development and implementation.

### CSQE Examination

The 4-hour examination consists of 160 multiple-choice questions. Topics covered on the Software Quality Engineer examination are:

Number	Topics	Number of
		Questions
I	General Knowledge, Conduct, and Ethics	24
II	Software Quality Management	16
III	Software Processes	24
IV	Software Project Management	16
V	Software Metrics, Measurement, and Analytical Methods	24
VI	Software Inspection, Testing, Verification, and	24
V I	Validation	24
VII	Software Audits	16
VIII	Software Configuration Management	16

Certified Quality Improvement Associate (CQIA) The Quality Improvement Associate is an individual who has a basic knowledge of quality tools and their uses and is involved in quality improvement projects but does not necessarily come from a traditional quality area.

### CQIA Examination

The 3-hour examination consists of 100 multiple-choice questions. Topics covered on the Certified Quality Improvement Associate examination are:

Number	Topics	Number of Questions
I	Quality Basics	27
II	Teams	23
III	Continuous Improvement	50

## Certified Quality Auditor –HACCP

CQA-HACCP (Hazard Analysis and Critical Control Point) must be an ASQ Certified Quality Auditor and have two years of experience working with HACCP standards. This two-year requirement can be part of the eight-year requirement used for the CQA exam.

# **CQA-HACCP Examination**

The 4-hour examination consists of 100 multiple-choice questions. Topics covered on the CQA-HACCP examination are:

Number	Topics	Number of
		Questions
I	HACCP Overview	10
II	Prerequisite Programs	18
III	HAACP Plan Development	47
IV	Implementation and Maintenance of HACCP	25
	System	

## Additional Certification Information

For additional certification information, please visit the ASQ Web page at <a href="http://www.asq.org">http://www.asq.org</a>.

## **Application**

# Obtaining an Application

The candidate or the Test Control Officer (TCO) may order the appropriate application (Quality Engineer, Reliability Engineer, Quality Technician, Mechanical Inspector, Quality Auditor, Quality Manager, Software Quality Engineer, Quality Improvement Associate, CQA-HACCP) from:

American Society for Quality ATTN: Customer Service P O Box 3005 611 East Wisconsin Avenue Milwaukee, WI 53201-3005

Phone: (800)248-1946

Home Page: <a href="http://www.asq.org">http://www.asq.org</a>

## Application, Continued

## Return Application

The applicant must submit the application form to the DANTES TCO who forwards it accompanied by a letter on official stationery.

NOTE: Include all fees required for testing with the application. See the *DANTES National Calendar of Certification Tests* for current fees.

## **Certification Criteria**

### Certification Criteria

The following chart identifies the certification criteria for various ASQ programs:

You must have	And at least
8 years on-the-job experi-	3 of the 8 years of
ence in one or more areas	experience must be in a
of CRE, CQE, CQA, or	professional, decision-
CSQE body of knowledge	making technical or
	management position
4 years on-the-job experi-	
ence in quality sciences	
10 years experience in one	5 of the 10 years of
or more areas of quality	experience must be in a
management	professional, decision-
	making technical or
	management position
2 years experience in	
mechanical inspection	
2 years of work	
experience or an associate	
degree	
ASQ-CQA and have 2	
years of experience	
working with the HACCP	
Standards. The 2-year	
requirement can be part of	
the 8-year requirement for	
the CQA exam.	
	ence in one or more areas of CRE, CQE, CQA, or CSQE body of knowledge  4 years on-the-job experience in quality sciences  10 years experience in one or more areas of quality management  2 years experience in mechanical inspection  2 years of work experience or an associate degree  ASQ-CQA and have 2 years of experience working with the HACCP Standards. The 2-year requirement can be part of the 8-year requirement for

## **Ordering**

Ordering Exams

Use the application supplied by ASQ to order the appropriate certification examination.

TCO Responsibilities The TCO must review the application for accuracy and completeness.

NOTE: The TCO prepares a letter on official stationery to accompany the returned, completed application to ASQ.

## **Fees**

**Examination** Fees

The examination fee schedule is shown in the table below.

The **Recertification by Journal** fee is as follows:

1 recertification - \$30\*/\$50\*\* 2 or more recertifications - \$50\*/\$50 Each\*\*

NOTE: There is a \$50 nonrefundable application fee. CMI, CQT, and CQIA are lifetime examinations and do not require recertification.

\*Member Fee

\*\*Nonmember Fee

Certification Area	Member ASQ	Non-member	Retake	Recertification
CQE	\$180	\$285	\$130	\$130*/\$235**
CQA	\$180	\$285	\$130	\$130*/\$235**
CRE	\$180	\$285	\$130	\$130*/\$235**
CMI	\$155	\$260	\$105	\$-0-
CQT	\$155	\$260	\$105	\$-0-
CQM	\$235	\$340	\$185	\$185*/\$290**
CSQE	\$180	\$285	\$130	\$130*/\$235**
CQIA	\$155	\$260	\$105	\$-0-
CQA-HACCP	\$180	\$285	\$130	\$130*/\$235**
CCT	\$155	\$260	\$105	\$105*/\$210**
Biomedical	\$180	\$285	\$130	\$130*/\$235**
SSBB	\$180	\$285	\$130	\$130*/\$235**

# Membership

## Membership

Membership in ASQ is not required; however, the following membership categories and fees are provided for your information:

Membership	Description	
Type Member	☐ Is engaged in or interested in quality profession or the	
111001	allied arts or sciences	
Senior Member	Has demonstrated growth and accomplishment in the	
	quality profession or allied arts and sciences	
	• Has 10 years of active experience in the quality	
	profession	
	• Has been a member in good standing for 1 year, and	
	can qualify in one of the following ways:	
	□ Administered engineering or inspection work applying	
	the principles of quality control for at least 2-years <i>or</i>	
	☐ Taught quality control or the allied arts and sciences at	
	an accredited institution for a least 2-years <i>or</i>	
	☐ Has been a senior member or comparable grade in a	
	recognized professional engineering, technical, or	
	scientific society	
Student	Is presently a full-time or cooperative student in an	
	accredited institution.	

Note: Membership is now pro-rated; contact ASQ for further information. Visit <a href="https://www.asq.org/inventchange">www.asq.org/sustain</a>.

## **Administration**

#### Military Administration

DANTES TEST CENTERS MAY ADMINISTER THE ASQ CERTIFICATION EXAMINATION TO ELIGIBLE ACTIVE DUTY MILITARY AND RESERVE COMPONENT PERSONNEL ON AN UNFUNDED (EXAMINEE PAYS) BASIS UNLESS MILITARY REGULATIONS PROVIDE OTHERWISE.

#### Civilians

DANTES Test Centers may administer the ASQ certification examination to the following civilians on an **UNFUNDED (EXAMINEE PAYS) AND SPACE AVAILABLE BASIS** according to local command policy and Service regulations:

- Retired military personnel
- Military family members
- Veterans
- U.S. federal employees

# **DANTES Test Dates**

Consult the DANTES National Calendar of Certification Tests for specific test dates at

http://www.dantes.doded.mil/dantes\_web/certification/calendar.htm?Flag=Tr ue.

## **Scoring**

#### **Scoring Exams**

Return completed examinations (within 24 hours) to the following address for scoring:

American Society for Quality ATTN: Certification P O Box 3005 611 East Wisconsin Avenue Milwaukee, WI 53201-3005

# **Candidates Notified**

Results are returned to candidates approximately 2 weeks <u>after</u> the exam.

## Refunds

#### Requests

Prior to the exam, refund requests maybe made by writing, phoning, faxing, or E-mailing ASQ Certification Department.

**NOTE:** The \$50 application fee is nonrefundable.

## Services Rendered

No refund is given for services rendered.

NOTE: Payment is issued in the same manner in which ASQ is paid. No refund is available after the exam has been given.

# **Unqualified Applicants**

Applicants found to be unqualified to sit for the examination may do one of the following:

Number	Unqualified applicants can	
I	Transfer to a different examination program that requires less	
	experience	
II	Request a refund	
III	Keep their application on hold until they meet the qualifications	

## Reschedules

## Reschedule Requests

Candidates must write the examination program area for which they applied at least once within one year of applying or retaking the exam. If they are unable to attend the exam, candidates may request to reschedule by mail, fax, phone, or E-mail. Reschedule requests are subject to the following fees:

Reschedule Time Frame	Fee
Postmarked, faxed, phoned, or E-mailed 5 or more	No Charge
working days before exam	
After exam	Full exam and
	application fee.

NOTE: All requests must be made to ASQ Headquarters. ASQ is not responsible for lost or misdirected mail.

## Recertification

#### Recertification

All certification areas require recertification except CQT, CMI, and CQIA. These 3 examinations are lifetime exams. The HACCP and Biomedical addon certifications to the CQA will automatically be recertified each time the CQA is recertified. Please see the ASQ calendar at the web site below for recertification fees.

Http://www.dantes.doded.mil/dantes\_web/certification/calendar.htm?Flag=True

## **Certification Maintenance**

## Credit Requirement

- 18 recertification unit (RU) credits are required over a 3-year period.
- CQA, CQE, Certified Quality Manager, CRE, CSQE, Six Sigma Black Belt and the CCT are the only certifications that require maintenance.
- Candidates who cannot gather the required credits may choose to recertify by exam. The entire exam must be retaken, and passed.

For further information on ASQ recertification program please visit Http://www.asq.org/cert/recert/index.html.

## **Questions/Problems**

#### **Problems**

Any program dependent on mail service may occasionally experience some difficulties. If application forms, descriptive information, examinations, examination scores, or certificates are not received in a timely fashion, inquire directly to ASQ at:

American Society for Quality (ASQ) ATTN: Customer Service P O Box 3005 611 East Wisconsin Avenue

Milwaukee, WI 53201-3005

Phone: (800)248-1946 Web site: www.asq.org

## **Security**

Test Loss or Compromise

Refer to Part I of the *DANTES Examination Program Handbook (DEPH)* for complete instructions if there is an ASQ test loss or compromise.

Contact DANTES <u>immediately</u> and refer to specific Service regulations for complete instructions if there is an ASQ test loss or compromise. DANTES address is:

DANTES Phone: (850) 452-1360
Code 20F DSN: 922-1360
6490 Saufley Field Road Fax: (850) 452-1161

Pensacola, FL 32509-5243

## Official Source of Information

ASQ Certification The ASQ web site is the official source of data about the ASQ certification examination, to include information about their costs, the qualifications of individuals, who may hold these certifications, and any other information pertaining to the credential.

## **WEB Pages and E-mail Addresses**

DANTES Web Address Access the DANTES Web pages at <a href="http://www.dantes.doded.mil">http://www.dantes.doded.mil</a>.

ASQ Web Address Access ASQ Web page at www.asq.org.

DANTES Email Address The DANTES Certification Program E-mail address is certprog@voled.doded.mil.